Bringing Africa Online

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Since 1996, the U.S. Agency for International Development has been working closely with African leaders and the private sector to bring Internet connectivity to Africa, through a program celebrating a U.S. Congressman who had dedicated his career to, and lost his life while, promoting development among countries on the continent.

The U.S. Agency for International Development (USAID) has been working for seven years to help African leaders bring information and communication technology (ICT) to their countries and to teach their citizens how to use it. USAID programs, based in partnerships with local-level institutions and private-sector donors, have provided an estimated 2 million Africans with Internet access, a number that is growing daily.

That figure represents a significant proportion of the total 8.9 million Africans now online.[1] Thanks to these pioneering efforts, an ICT success story is emerging, showcasing the positive results that can be achieved when African policy-makers and entrepreneurs are brought together with the best technology and know-how that the United States can offer.

These achievements have been accomplished under a program we call the Leland Initiative. It is named for Mickey Leland, a U.S. Congressman from the state of Texas who died in a plane crash while on a famine relief mission to Ethiopia in 1989. Throughout his career, Congressman Leland fought to bring the benefits of development to the people of Africa. The Leland Initiative was launched in June 1996 to help bring the information revolution to Africa in tribute to Congressman Leland's dedication and commitment to people everywhere.

In the mid-1990s, only a handful of countries in Africa had Internet access. This usually was limited to slow and expensive e-mail service in the capital city. Today, all 44 sub-Saharan African countries have access that, in most cases, extends to cities and regions far beyond the capital. Hundreds of Internet service providers (ISPs) have sprung up, and thousands of cybercafes offer fee-paying customers access to computers connected to the Internet. The

Leland Initiative established the principal Internet gateway and national connection for 10 of those countries.[2] In 16 additional countries,[3] the Leland Initiative and the local USAID missions have delivered access to major institutions such as universities, parliaments and private sector groups. In all countries, citizens experience the impact of Leland in the form of a more vibrant market, better access, and lower prices.

The accomplishments of this initiative must be measured in more than technology and access, however. Courageous African leaders saw the Leland Initiative as an opportunity to change government monopolies in telephone services, the traditional but discredited approach. African and U.S. private sector entities responded vigorously and rapidly to the opportunities that these policies created. With the groundwork laid by the Leland Initiative, private companies have invested capital, established businesses, built infrastructure, and aggressively pursued new business opportunities.

The Leland Principles

The Leland Initiative was conceived to work in several substantive areas that we've called the three "P's," which stand for policies, pipes, and people.

In the policy area, USAID established one important principle with the 1996 launch of the Leland Initiative. We would only work with those countries willing to adopt modern, Internet-friendly communication policies based on low prices, the introduction of competition, and the free flow of information. Leland experts offered to help African telecommunications leaders reach out to the private sector to implement these policies.

"Pipes" mean the hardware, the communication technologies that link people to ISPs, ISPs to the national gateways, and these, in turn, to the worldwide Internet backbone. The Leland Initiative experts installed state-of-the-art telecommunications equipment to national capitals and trained phone company staff in its use. Leland experts also provided technology to link private Internet services businesses to this equipment and devised models for getting connections out to underserved areas and the secondary cities.

Helping people build the skills and knowledge base of an information industry was the third objective of the Leland Initiative. We intended to help individuals and institutions apply the powerful information and communication tools of the Internet to achieve social and economic development and improve the lives of African citizens.

Ten nations joined the Leland Initiative on these terms in 1996. In partnership with the U.S.-based telecommunications corporation AT&T, USAID showed government regulators in these first-round countries how to set affordable wholesale prices for Internet circuits that would still yield a healthy rate of return on the investments that their governments had made for the circuits. AT&T's involvement helped national phone company officials—accustomed to monopolistic telecommunications policies—view the private sector as a partner, rather than as an opponent to be controlled. In each country, Leland arranged meetings among the stakeholders—government officials, telephone company officers, private entrepreneurs, university and school leaders, NGOs and the like. Through these meetings, Leland helped the parties hammer out transparent—and minimal—licensing procedures. In each Leland country, multiple companies responded to these opportunities to enter the Internet business, ready to invest an average of $40,000 each to participate.

When the policies were in place, USAID turned to the U.S. technology sector, using firms in Utah, California, Virginia, Maryland, and elsewhere to design modern satellite-based Internet gateways to bring efficient high speed Internet into the national phone companies. We introduced both wired and wireless technologies to link these gateways to the new ISPs and to give them telephone lines over which customers could access the Internet. New wireless technologies continue to be provided to underserved neighborhoods and people; cybercafes and neighborhood access centers are now a major growth point for the Internet.

The initial 10 countries that signed on to the terms of the Leland Initiative made rapid progress in their telecommunications sectors, progress that was noted by neighboring governments. Countries that had spurned participation upon the initial offering in 1996 saw that their policies of high prices and

state and private monopolies were not achieving the results obtained by nations that had adopted Internet-friendly policies. In the late 1990s, these initial holdouts began to sign agreements to pursue policy reform, to lower prices, and to allow marketplace competition.

Increasing Skills

Proper hardware and sufficient access are only of value when people know how to use information technologies to improve their lives and their communities. Recognizing this, USAID embarked on a major effort to increase the capacity of African people and institutions to use information resources in education, business, agriculture, and democracy building.

The Leland Initiative has trained thousands of individuals in strategic use of the vast international information resources that the Internet provides. These people represent every sector of society—government, business, nongovernment organizations (NGOs), education, and health care. They apply these skills today to invigorate economic activity, increase human potential, spur development, and create more civic participation and greater transparency in government.

The Internet-based development activities that are products of the Leland Initiative are varied:

- Partnerships between African and U.S. schools strengthen in-country capacity to use the Internet in the educational process, and foster on-going relationships.

- Education officials are uniting disparate universities in Kenya, Uganda, Rwanda, South Africa, Mali, and Guinea into national networks, the fundamental building block of the rapidly globalizing educational world.

- Private sector trade and investment activities are strengthening the ability of business associations to use the Internet.

- Internet-based networks of democracy stakeholders from the executive, legislative and judicial branches are increasing transparency, promoting democracy and building better governments.

The business sector provides some of the most tangible evidence of the progress made in these areas. We provided equipment and training to help small-business owners develop their skills and identify strategic information resources. Within six months, all the companies involved in the project had increased their revenue by 60 percent. Many of the enterprises were able to find better sources for raw materials and equipment through the Internet, thus reducing their operating expenses and increasing their competitiveness.

Another success story was in the formation of a women's business network. With membership from Ghana, Kenya, Uganda, South Africa, and the United States, the Women's Business Network promotes use of the Internet in developing trade relationships, expanding access to critical market information, and establishing e-business linkages between African and U.S. companies. More than 140 African businesswomen created their own, self-reliant U.S.-Africa Women's Business Alliance. Forty businesswomen have set up Web sites to better market their products and services, or have begun advertising their goods over existing sites.

In KwaZulu Natal Province in South Africa, Leland Initiative experts helped the Black Farmers Union set up Internet information centers. Internet access at these centers allows more than 1,200 farmers to use banking services online, and thus avoid a 128-kilometer roundtrip to the closest urban area served by financial institutions. They also have real-time access to information on the price and availability of key agriculture inputs such as fertilizer and seed, rather than conducting transactions through costly and inefficient middlemen.

The Future

The results and the lessons derived from USAID's seven-year experience with the Leland Initiative have become the basis for the information technology component of the Global Development Alliance, the U.S. Government's business model for sustainable development through partnerships among governments, nongovernmental organizations, businesses, and educational institutions. Public-private efforts are underway to achieve a variety of goals that will strengthen the role of ICTs

in Africa. USAID has engaged partners from government, education, and the private sector to develop improved education and training programs to produce an African cadre of skilled ICT professionals and experienced regulators. U.S. universities, corporations, and NGOs are providing expertise, software, and equipment to strengthen poorly resourced African universities.

These partnerships work toward helping Africans meet one of the key challenges of the 21st century –stimulating economic and social development. Distance learning, telemedicine, e-commerce, and e-government all hold great promise for African and American interests alike. The Leland Initiative has already introduced millions of Africans to the advantages that information technologies can provide in enhancing the quality of life and building better societies. It is our challenge now to continue this work and expand our efforts to the millions more who still have not entered the digital age.

1. International Telecommunications Union Statistics at a Glance, October 2003. http://www.itu.int/ITU-D/ict/statistics/at_glance/Internet02.pdf

2. Cote d'Ivoire, Benin, Eritrea, Guinea, Guinea-Bissau, Madagascar, Mali, Malawi, Mozambique, Rwanda.

3. Chad, Democratic Republic of the Congo, Ethiopia, Ghana, Namibia, Niger, Nigeria, Lesotho, Liberia, Senegal, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe

A number of institutional Web sites supported by the Leland Initiative demonstrate its achievements. They are available at: www.nettelafrica.org, www.kenet.org, www.ncc.gov.ng, www.makerere.ac.ug